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| DAVID S ALAVI         |             |                       | FINEMAN, LEE A      |                  |
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/995,933  
Filing Date: November 28, 2001  
Appellant(s): CASLER, CHRISTOPHER L.

**MAILED**  
**MAY 17 2005**  
**GROUP 2800**

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David S. Alavi  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7 March 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

A statement identifying the related appeals and interferences that will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection is substantially correct. The changes are as follows: i) Keitoku discloses several embodiments of an audio-visual remote-controlled retail electronic device including a prior art embodiment of an audio-visual remote-controlled retail electronic device with a plane transparent portion for an infrared receiver and a general teaching that adding a hemispheric lens increases acceptance angles.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

|              |                  |        |
|--------------|------------------|--------|
| US 5,036,188 | Keitoku          | 7-1991 |
| GB 1,500,495 | Harwood          | 2-1978 |
| US 4,912,880 | Haddock et al.   | 4-1990 |
| US 4,921,330 | Takahashi et al. | 5-1990 |

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4, 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keitoku, U.S. Patent No. 5,036,188 in view of Harwood, United Kingdom Patent No. GB 1,500,495 A and Haddock, U.S. Patent No. 4,912,880 or Takahashi et al., U.S. Patent No. 4,921,330.

Keitoku discloses audio-visual (e.g. TV or stereo, column 1, lines 14-15) remote controlled retail electronic device (figs. 8 and 9) with a plane transparent portion (2) for an infrared receiver (3) in the prior art embodiments. Further Keitoku acknowledges the problem of a flat lens limiting the field of view and sets forth a solution incorporating a hemispheric lens (figs. 1-4, 6-7) into the original product in order to solve the identified problem, i.e., increasing

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the acceptance angle over which the infrared signals are received by the infrared receiver (column 2, lines 30-45).

Keitoku lacks solving the identified problem by retail purchasing or selling a hemispheric lens for retrofitting the device wherein the transparent hemispheric lens body is fabricated from a dielectric material, in particular acrylic plastic; having a substantially hemispheric concave inner and convex outer surface, having a substantially flat annular surface connecting the inner and outer surfaces, an adhesive layer comprising double-sided adhesive tape provided on the annular surface for securing the lens to a face of the remote-control device, wherein the lens body hemispheric inner surface is about  $\frac{3}{8}$  inch in diameter and the lens body hemispheric outer surface is about  $\frac{1}{2}$  inch in diameter and instructing the purchaser of how to use the hemispheric lens.

Harwood is directed to the similar problem of increasing the width of field and teaches the method of adding (retrofitting) a hemispheric lens attachment (figure) to a known device (page 1, lines 75-78) to increase acceptance angles of the device (page 1, lines 23-26). In light of the teachings of Keitoku to increase the acceptance angle of a remote control by providing a hemispheric lens, it would have been obvious to one of ordinary skill in the art to provide the hemispheric lens by retrofit as set forth in Harwood rather than redesigning the original device to the increase the acceptance angles of the device thereby providing a solution which is more convenient and less costly. Further it is very well known in the electronic art to purchase add-on devices with instructions from a retail electronic store. It would have been obvious to one of ordinary skill in the art at the time the invention was made to obtain the add-on lens with instructions by retail purchase or sale because it would be readily available and improve the ease

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of attainability and utilization. Harwood also teaches the hemispheric lens (4), made of acrylic plastic, having a substantially hemispheric concave inner and convex outer surface and having a substantially flat annular surface connecting the inner and outer surfaces lens (figure) which is secured to a device (1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the hemispheric lens from a transparent dielectric material, in particular acrylic plastic, and have a substantially hemispheric concave inner and convex outer surface with a substantially flat annular surface connecting the inner and outer surfaces lens as suggested by Harwood, to provide cost savings by using reduced amounts of less expensive materials. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a 1/2-inch exterior, 3/8-inch interior diameter lens, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering an optimum value or working ranges involves only routine skill in the art. One would have been motivated to use a specific lens diameter, like the claimed values, for the purpose of accommodating the size of the detector and providing adequate acceptance angles/angles of view. *In re Aller*, 220 F.2d 454, 456 105 USPQ 233, 235.

Finally, while Keitoku or Harwood do not explicitly teach an adhesive layer to secure the hemispheric lens to a device, it is very well known to use an adhesive layer, like double sided tape, to connect optical elements as illustrated by either Haddock et al., see especially column 9, lines 31-35, or Takahashi et al., see especially column 4, lines 59-64. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use double-sided adhesive tape to secure the hemispheric lens of Keitoku in view of Harwood as set

forth above, as taught by Haddock et al. or Takahashi et al., since it is a well-known cost effective method of adhesion.

**(10) Response to Argument**

Appellant argues in page 4, paragraph 2 of the appeal brief that Keitoku teaches away from retrofitting the device because Keitoku sets forth a solution incorporating the hemispheric lens into the original product in order to solve the identified problem. The examiner respectfully disagrees. Keitoku's solution does not prohibit other ways of solving the identified problem and therefore does not teach away from retrofitting.

Appellant further submits that "Keitoku implicitly teaches away from any installation of a hemispheric lens with a flat annular surface secured on the front face of the device" (page 4, paragraph 4) because each embodiment includes a radial flange on the lens and was installed from within the outer case of the device. The examiner respectfully disagrees. Although, the flat lens of prior art figures 8 and 9 may have been installed from within the device, this action does not preclude anything being attached to the outside surface at a later date. It is also noted that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Although, Keitoku sets forth a solution in figs. 1-4, 6-7 of incorporating a hemispheric lens into the original product in order to solve the identified problem, Keitoku is not relied upon for

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the teaching of retrofitting, Harwood is. Therefore, the solution of providing the hemispheric lens by retrofit as set forth in Harwood rather than redesigning the original device to the increase the acceptance angles of the device is an appropriate obviousness rejection from the combined teachings of the references.

In response to appellant's argument that the references are not analogous art since no one skilled in the art would have looked to Harwood because the lens of Harwood is to be used underwater (page 5, paragraph 1), it has been held that a prior art reference must either be in the field of appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Harwood is reasonably pertinent to the particular problem with which the appellant was concerned, i.e., to increase acceptance angles of the device.

The appellant also argues that the hemispheric lens has inner and outer surfaces so as to achieve the desired increase in acceptance angles and not for any cost or material savings (page 5, paragraph 1). The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In the instant case, clearly using a hollow lens as suggested by Harwood versus a solid lens as shown in the solution of Keitoku would provide cost savings by using reduced amounts of materials.

Appellant further argues on page 5, paragraph 2 that because the flat annular surface of the hemispheric lens of Harwood is attached to an intermediate element (1) before the camera,



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there is no teaching in Harwood to attach the hemispheric lens directly to a previously purchased device. Again, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. Although the hemispheric lens of Harwood is not attached directly to the camera, it is attached in retrofitting manner. In light of the teachings of Keitoku to increase the acceptance angle of a remote control by providing a hemispheric lens, the combined teachings demonstrate that a hemispheric lens may be provided on the device by retrofit and therefore is a proper rejection.

Appellant's further argues that the use of an adhesive is inconsistent with Harwood because it would render the lens assembly unsuitable for one of its stated purposes, i.e., to be repeatedly removed and replaced on the camera (page 5, paragraph 3-page 6). The examiner respectfully disagrees that the principle operation of the device would be destroyed. It is first noted that Keitoku is the primary reference directed to the remote control electronic device. Further, Harwood is used as the secondary reference teaching that that a hemispheric lens may be provided on the device by retrofit to increase the acceptance angles. Clearly the primary function of receiving remote control signals is preserved and has the further benefit of providing a solution that is more convenient and less costly. It appears that the appellant is arguing against the references individually, and it is further noted that one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lee Fineman




Conferees:

Drew Dunn



Darren Schuberg



**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**